## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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| Assignee | : OnPlan, Inc. | Examiner | : Daniel S. Felten |
| Serial No. | : 09/766,277 | Conf. No: | : 9675 |
| Filed | : January 19, 2001 | | |
| Title | : INVESTMENT GUIDANCE SYSTEM WHICH ENABLES INDIVIDUALS TO RATE AND SELECT ASSETS BASED ON PERSONAL INVESTMENT PREFERENCES | | |

**MAIL STOP APPEAL BRIEF – PATENTS**
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

## APPEAL BRIEF ON BEHALF OF ROBERT K. SAMSON

Appellant files this Appeal Brief pursuant to 37 C.F.R. § 41.37, in support of its Notice of Appeal, dated November 9, 2009. The fees in the amount of $270 required under 37 C.F.R. § 41.20(b)(2) are being paid concurrently on the Electronic Filing System (EFS) by way of Deposit Account authorization. Also being filed concurrently is a petition for a two (2) months extension of time, as well as the required time extension fees. Appellant believes no additional fees are due. However, the Commissioner is hereby authorized to charge any fees that may be due, or credit any overpayment of same, to deposit account 06-1050, referencing the attorney docket number shown above.

**(i.) Real Party In Interest**

The real party in interest in the above application is **OnPlan, Inc.**

**(ii.) Related Appeals and Interferences**

The Appellant knows of no other related cases, including any related applications, appeals or interferences, that will directly affect, be directly affected by, or have a bearing on the Board's decision in the pending appeal.

**(iii.) Status of Claims**

This is an appeal from the decision of the Primary Examiner in a Final Office Action dated June 9, 2009, rejecting claims 78-86 and 113-116. Claims 1-77 and 87-112 are cancelled. The pending claims have been twice rejected. Claims 78-86 and 113-116 are the subject of this appeal.

**(iv.) Status of Amendments**

All amendments have been entered. Appellant has filed a Notice of Appeal on November 9, 2009.

**(v.) Summary of Claimed Subject Matter**

Background

The claimed invention is directed to a system and method for providing investment guidance and, more particularly, to a system for facilitating the selection of investment options such as mutual funds. **[Specification, page 2, lines 5-7]**

Appellant's Invention

Claim 78

One aspect of Appellant's invention is set out in claim 78 as an investment guidance system for providing financial planning assistance. "In one aspect, the invention features an investment guidance system which enables individuals to rate and select assets based on personal investment preferences." **[Specification, page 4, lines 2-3]**

Additionally, FIGS. 1 and 2 depict embodiments of the system/platform used to implement the investment guidance system.
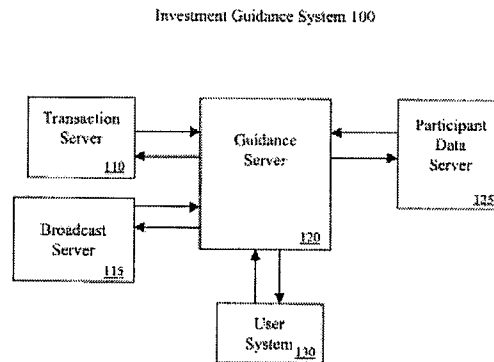
Investment Guidance System 100



FIG. 1

"FIG. 1 illustrates the system architecture of the investment guidance system 100 which enables investors to determine long-term financial goals, select an optimized asset mix, select mutual funds from a pre-set universe based on personal investment preferences, execute mutual fund trades, receive information alerts when needed and evaluate: and adjust investments on an ongoing basis. The system facilitates the selection of mutual funds by allowing the investor to apply relative weights of importance to mutual fund criteria rather than requiring the investor to set fixed statistical thresholds. The system then sorts the available funds taking into account all of the weighted mutual fund criteria and presents the user with a set of ranked funds. According to the embodiment depicted in FIG. 1, the investment guidance system 100 includes a guidance server 120, a transaction server 110, a broadcast server 115, a participant data server 125, and a user system 130. The guidance server 120 is the primary provider of investment planning

assistance to users, and is the central database repository for storing user profile and investment data. In this manner, ongoing investment monitoring may be performed and alerts may be triggered. The guidance server 120 and its function will be described in further detail below, in connection with FIG. 3. ... The transaction server 110 may be located at the site of a brokerage firm, wherein it accepts and executes securities transactions which are initiated by the user and transmitted via the guidance server 120. The transaction server 110 may also communicate with various stock 20 exchange servers to effect such transactions. As will be apparent to those skilled in the art, there are a number of ways that trades can be transmitted electronically for execution in securities, commodities, or other exchanges." **[Specification, page 8, line 12, to page 9, line 22]**

A computer-based implementation of the investment guidance system depicted in FIG. 1 is shown in FIG. 2. The implementations of FIG. 2 enable input/output functionalities that allow a user to provide and receive data to and from the investment guidance system.
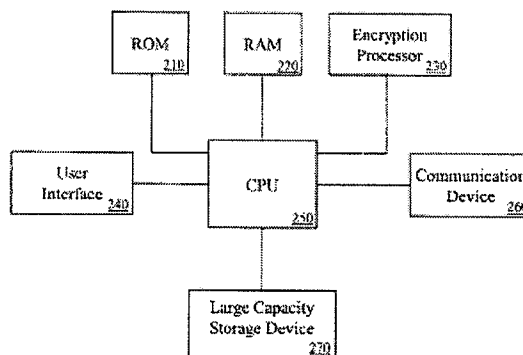


**FIG. 2**

"FIG. 2 depicts an example computer system capable of carrying out the functionality of the investment guidance system in FIG. 1. The computer system may represent an exemplary user system or any one of the plurality of servers referenced in FIG. 1. The system includes a

central processing unit ("CPU") 250, read-only memory ("ROM") 210, random access memory ("RAM) 220, an encryption processor 230, a communication device 260, user interface 240 and a large capacity storage device 270. The large capacity storage device 270 may include hard disk magnetic or optical storage units, as well as CD-ROM drives or flash memory. The CPU 250 executes program code stored in one or more of the ROM 210, RAM 220 and/or large capacity storage device 270 according to conventional data processing techniques to carry out the functions and acts described in connection with the investment guidance system. The CPU 250 preferably comprises at least one high-speed digital data processor adequate to execute program modules for determining the probability of reaching a financial goal, developing a retirement and investment plan and evaluating mutual fund selection criteria. The CPU 250 may be embodied as a single commercially available processor or as a number of processors operating in parallel."
**[Specification, page 11, lines 2-16]**

...

"A user interface 240 can comprise a display device, such as a cathode ray tube (CRT) or a liquid crystal display (LCD), for displaying information to a computer user. For example, graphical illustrations of current and "target" asset allocations, charts illustrating lifetime wealth forecasts and risk assessment, and other data may be presented to the user on the display device. Additionally, user interface 240 also comprises an alphanumeric input device and a cursor control, such as a mouse, a trackball, or cursor direction keys for communicating directional information to the CPU. For purposes of the preferred embodiment, it is assumed that a display is used to present information to each user, but it should be understood that information may be presented to the users using an audio signal, a Braille interface or any other suitable user interface." **[Specification, page 13, line 15, to page 14, line 2]**

An inventive feature of Appellant's claim 78 includes means for receiving a financial goal from a user. "In yet another aspect, the invention features an investment guidance system for providing financial planning assistance to Internet users. The system features a memory for storing asset information, a processor connected to the memory, a transmitter connected to the

processor to enable the processor to transmit information to a user system by means of the Internet, and a receiver connected to the processor to allow the processor to receive information from the user system by means of the Internet. The processor receives a financial goal from a user and also receives one or more input decisions upon which the probability (of achieving the financial goal is dependent, wherein one of the input decisions includes selecting an asset allocation based on investment risk." **[Specification, page 6, lines 12-20]** Also, "FIG. 4 illustrates a retirement goal forecaster 400 summary screen according to one embodiment of the present invention. According to the embodiment depicted, the goal forecaster 400 summary screen includes seven separate areas: (1) an area 410 to display "coaching" messages to assist the user in developing a retirement and investment plan; (2) an area 420 for the user to modify savings amounts, anticipated retirement age, and retirement need (i.e., the income required at retirement); (3) an area 430 for graphically depicting both the current and target portfolio lifetime wealth forecast; (4) an area 440 for graphically depicting both the current and target asset allocation; (5) an area 450 to select various asset allocations varying from conservative to aggressive; (6) an area 460 for graphically depicting the risk associated with the target asset allocation; (7) an area 470 for illustrating the output values (also referred to as the "bottom line"); and, (8) an area 480 to graphically illustrate the probability of meeting the retirement income goal through a visual indicator." **[Specification, page 17, line 18, to page 18, line 6]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

A further inventive feature of Appellant's claim 78 includes means for receiving one or more input decisions upon which the probability of achieving said financial goal is dependent, wherein one of the input decisions includes selecting an asset allocation based on investment risk. "The processor receives a financial goal from a user and also receives one or more input decisions upon which the probability (of achieving the financial goal is dependent, wherein one of the input decisions includes selecting an asset allocation based on investment risk." **[Specification, page 6, lines 17-20]** Also, "The retirement goal forecaster 320 determines and

graphically depicts the current asset allocation. The current allocation is based on the aggregate securities classification and the amounts across all of the accounts. Based on the user's current holdings, the investment guidance system 100 may forecast the likelihood of meeting a retirement goal and graphically depict the current portfolio's projected growth over time. The retirement goal forecaster 320 provides the user with statistics regarding the likelihood that they will be able to retire at the specified retirement age, given the time horizon, calculated returns, and standard deviations, which are based on the user's current portfolio. Additionally, the retirement goal forecaster 320 enables users to modify their current savings rate, anticipated retirement age, income required at retirement and investment risk in order to define long-term goals and achieve a feasible investment plan. The user defines his/her risk tolerance by selecting one of the multiple predefined asset allocations ranging from conservative to aggressive. The retirement goal forecaster 320, its function and exemplary user interface will be discussed in further detail in connection with FIG. 4." **[Specification, page 15, line 21, to page 16, line 11]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

Another inventive feature of Appellant's claim 78 includes means for determining the probability of achieving said financial goal. "The processor also determines the probability of achieving the financial goal and receives an indication that the user has selected a target asset allocation investment plan in order to achieve the financial goal." **[Specification, page 6, lines 20-22]** Also, "[t]he calculations performed by the retirement goal forecaster 320 in determining a user's probability of meeting their retirement goal is illustrated in the following example:" **[Specification, page 28, lines 14-15, and see Example of probability computation in Specification, page 28, line 16, to page 30, line 12]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

Yet another inventive feature of Appellant's claim 78 includes means for receiving an indication that said user has selected a target asset allocation investment plan in order to achieve

said financial goal. "The processor also determines the probability of achieving the financial goal and receives an indication that the user has selected a target asset allocation investment plan in order to achieve the financial goal." **[Specification, page 6, lines 20-22]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

A further inventive feature of Appellant's claim 78 includes means for receiving a request to rate a plurality of assets within a selected asset class. "Thereafter, the processor receives a request to rate a plurality of assets within a selected asset class, ..." **[Specification, page 7, lines 1-2]** Also, "[a]rea 580 allows the user to select the universe of funds he/she desires to evaluate. In the embodiment depicted, the asset class definitions include large cap, mid cap, small cap, international equity, and bonds. The asset class definitions may be defined by the partnering financial institution, a third party financial company, or by the user. ... The user can then proceed with executing transactions within the default asset class or choosing another asset class to begin evaluating." **[Specification, page 32, line 15, to page 33, line 11]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

Another inventive feature of Appellant's claim 78 includes means for providing two or more criteria associated with said assets for said user to evaluate. "The system comprises a method for receiving a request to rate a plurality of assets, providing two or more criteria associated with the assets for a user to evaluate, ..." **[Specification, page 4, lines 3-5]** Also, "[a]rea 550 allows the user to rank the importance of mutual fund criteria based on personal preferences through graphical input mechanisms." **[Specification, page 34, lines 18-19]** Additionally, "[i]n one embodiment of the investment guidance system 100, the various criteria which are utilized for eliminating and ranking mutual funds and the graphical input mechanisms used to define and weight the criteria are illustrated in FIG. 6. Initially, the user filters the available universe of funds by establishing minimum criteria that the fund must satisfy. The various criteria, which are depicted in FIG. 6 in the three selectable pull-down windows, are used to set minimum thresholds." **[Specification, page 35, lines 10-15]** See also FIGS. 1 and 2, and

their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

An additional inventive feature of Appellant's claim 78 includes means for determining a normalized value for each of said two or more criteria. "The mutual fund selector utilizes financial statistics which are well known in the art, in order to evaluate the mutual fund criteria. Some of the statistics are components of the Modem Portfolio Theory (MPT), which is a standard financial and academic method for assessing the risk of mutual funds. The financial statistics include, but are not limited to, alpha, beta, R-squared, standard deviation, and the Sharpe ratio. However, since each financial statistic is unique and has a different range (e.g. R-squared ranges from 0 to 100, alpha can be positive or negative with no numerical limits), it is preferable to normalize the statistical data so that the diverse mutual fund criteria can be evaluated together. The statistical data is normalized by creating a distribution of the selected mutual fund universe and describing the statistical value based on its relative position in the distribution. The slider bars are multipliers, which allow the user to effectively assign a weight to each of the mutual fund criteria. Each mutual fund criterion is measured by one or more statistical values which are normalized so that different fund criteria can be evaluated simultaneously." **[Specification, page 37, lines 1-13]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

A further inventive feature of Appellant's claim 78 includes means for receiving a relative weight of importance for said two or more criteria based on the user's personal investment preferences. "Once the user is educated on each of the defined mutual fund characteristics, through a series of "coaching" messages, he/she ranks the importance of each characteristic based on personal preference. These preferences are taken into account simultaneously to sort the universe of mutual funds without having to eliminate any funds from the evaluation process. The graphical input mechanisms, illustrated in this embodiment as slider bars, are used to apply relative weights of importance to the mutual fund characteristics. The user assigns a relative weight of importance to the mutual fund criteria by selecting the appropriate

slider bar and moving the slider 650 to various positions. According to the embodiment depicted, the mutual fund criteria include tax efficiency, consistent returns, stock/bond picking ability, low risk, consistent investment style and low fees. However, this list is not exhaustive and additional fund criteria may be specified. The user can apply relative weights to leach of the mutual fund criteria by utilizing the slider bars which range from unimportant to important. The left end-point 640 represents "unimportant" mutual fund characteristics and the right end-point 660 represents an "important" mutual fund characteristics. The user indicates his/her preferences for each criterion, by positioning the slider 650 anywhere between the left end-point 640 and the right end-point 660. For example, if the user positions the slider 650 at the left end-point, the user has defined that the mutual fund criterion is unimportant, and the criterion is given a weight of zero. Conversely, if the user positions the slider at the right-end point 660, the user has defined that the mutual fund criterion is important, and the criterion is given the maximum defined weight. Likewise, if the user positions the slider 650 in the middle, the user has defined that the mutual fund criterion should be assigned half of the defined maximum weight. The investment guidance system 100 then ranks the mutual funds based on the user's personal preferences. The various mutual fund criteria can be defined by the investment guidance system 100, by the partner financial provider or by the user him/herself." **[Specification, page 35, line 22, to page 36, line 22]**

Furthermore, Appellant's FIG. 6 depicts an implementation of a graphical user interface screen that specifies selection criteria that may be selected by the user, and the graphical elements enabling interactive setting of the weights associated with the various selected criteria.

**FIG. 6**

See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

Another inventive feature of Appellant's claim 78 includes means for determining a rating for each asset based on the normalized values and the relative weights assigned to said two or more criteria. "In order to rate each mutual fund in the universe, the assigned weights are (a) multiplied by the mutual funds normalized criteria score and (b) added to each other. Therefore, the final score or rating for each mutual fund is the aggregate sum of each of the normalized mutual fund criteria scores multiplied by the respective weights. When the "rank funds" button 630 is clicked, the funds are ranked according to the final fund score, which simultaneously takes into account all of the user's preferences. The user then decides which funds to buy and sell in order to fulfill the target asset allocation plan." **[Specification, page 39, lines 3-9]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details

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regarding embodiments of the "means" used to implement the functions of Appellant's invention.

A further inventive feature of Appellant's claim 78 includes means for ranking plurality of said assets based on said rating. "In order to rate each mutual fund in the universe, the assigned weights are (a) multiplied by the mutual funds normalized criteria score and (b) added to each other. Therefore, the final score or rating for each mutual fund is the aggregate sum of each of the normalized mutual fund criteria scores multiplied by the respective weights. When the "rank funds" button 630 is clicked, the funds are ranked according to the final fund score, which simultaneously takes into account all of the user's preferences. The user then decides which funds to buy and sell in order to fulfill the target asset allocation plan. FIGS. 7a and 7b illustrate two exemplary embodiments of the fund rank table described in connection with the mutual fund selector screen 500. The fund rank table includes fields for the fund's ticker symbol 704, its name 706, the possible type of trading transaction 708, and the fund rank 710 based on the user's personal investment preferences. By clicking on the fund's ticker symbol the system displays performance data for the selected fund including major fund holdings, Morningstar ratings, etc. The trading field 708 will show "sell" only if the user currently owns shares of the mutual fund in the asset class that is currently being evaluated. FIG. 7a, which illustrates the "Returns" tab 702 of the fund rank table, depicts the mutual funds' total returns 712 for 1, 3, 5 and 10 years. The investment guidance system 100 defaults to ranking the funds according to the user's personal preferences for each fund criteria. However, by clicking 20 on the "year" field of the total returns 712, the investment guidance system 100 will rank the funds according to returns, from highest to lowest. FIG. 7b, which illustrates the "Risk tab 703 of the fund rank table, depicts the calculated values for the statistical parameters used in evaluating the mutual fund criteria. In one embodiment of the system, the statistical parameters include standard deviation 713, Sharpe Ratio 715, alpha 717, and R-squared 718. By clicking on the title field of any of the statistical parameters, the investment guidance system 100 will rank the funds according to the selected statistical parameter from highest to lowest." **[Specification, page 39, line 3, to page 40, line 3]** See also FIGS. 1 and 2, and their accompanying descriptions, as

provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

Yet another inventive feature of Appellant's claim 78 includes means for receiving a request to execute a trade for one or more of the ranked assets in order to fulfill said target asset allocation investment plan. "Moreover, in order to select a fund to execute a transaction, the user highlights the fund by clicking on the fund name. The user will then be prompted to perform a mutual fund transaction by specifying the quantity of shares to be bought or sold. The investment guidance system 100 will then reallocate the assets based on the new transaction." **[Specification, page 40, line 3-7]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

And Appellant's claim 78 also includes the inventive feature of means for executing said trade for one or more of the selected ranked assets. "Thereafter, the system receives a request to execute a trade for one or more of the ranked assets in order to fulfill the target asset allocation investment plan and executes the trade for one or more of the selected ranked assets." **[Specification, page 5, line 5-7]** Also, "[f]urther, the processor receives a request to execute a trade for one or more of the ranked assets in order to fulfill a target asset allocation investment plan, and executes the trade for one or more of the selected ranked assets." **[Specification, page 7, line 5-8]** And, "[m]oreover, in order to select a fund to execute a transaction, the user highlights the fund by clicking on the fund name. The user will then be prompted to perform a mutual fund transaction by specifying the quantity of shares to be bought or sold. The investment guidance system 100 will then reallocate the assets based on the new transaction." **[Specification, page 40, line 3-7]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

Claim 113

Further embodiments of Appellant's invention are set out in claim 113, which depends from independent claim 78, and is directed to the means for determining the normalized value for each of said two or more criteria, as recited in claim 78.

Inventive features of claim 113 include means for creating a distribution of the assets. "The mutual fund selector utilizes financial statistics which are well known in the art, in order to evaluate the mutual fund criteria. Some of the statistics are components of the Modem Portfolio Theory (MPT), which is a standard financial and academic method for assessing the risk of mutual funds. The financial statistics include, but are not limited to, alpha, beta, R-squared, standard deviation, and the Sharpe ratio. However, since each financial statistic is unique and has a different range (e.g. R-squared ranges from 0 to 100, alpha can be positive or negative with no numerical limits), it is preferable to normalize the statistical data so that the diverse mutual fund criteria can be evaluated together. The statistical data is normalized by creating a distribution of the selected mutual fund universe and describing the statistical value based on its relative position in the distribution. The slider bars are multipliers, which allow the user to effectively assign a weight to each of the mutual fund criteria. Each mutual fund criterion is measured by one or more statistical values which are normalized so that different fund criteria can be evaluated simultaneously." **[Specification, page 37, lines 1-13]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

Additional inventive features of claim 113 include means for computing, for each of said two or more criteria of each of the assets in the distribution, normalized values of said two or more criteria based on the relative position of the respective asset in the distribution. "The mutual fund selector utilizes financial statistics which are well known in the art, in order to evaluate the mutual fund criteria. Some of the statistics are components of the Modem Portfolio Theory (MPT), which is a standard financial and academic method for assessing the risk of mutual funds. The financial statistics include, but are not limited to, alpha, beta, R-squared,

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standard deviation, and the Sharpe ratio. However, since each financial statistic is unique and has a different range (e.g. R-squared ranges from 0 to 100, alpha can be positive or negative with no numerical limits), it is preferable to normalize the statistical data so that the diverse mutual fund criteria can be evaluated together. The statistical data is normalized by creating a distribution of the selected mutual fund universe and describing the statistical value based on its relative position in the distribution. The slider bars are multipliers, which allow the user to effectively assign a weight to each of the mutual fund criteria. Each mutual fund criterion is measured by one or more statistical values which are normalized so that different fund criteria can be evaluated simultaneously." **[Specification, page 37, lines 1-13]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

Claim 114

Further embodiments of Appellant's invention are set out in claim 114, which depends from independent claim 78, and is directed to the means for determining the rating for each asset based on the normalized values, as recited in claim 78.

Inventive features of claim 114 include means for multiplying each of the normalized values associated with each of the assets by the respective relative weight of importance. "The mutual fund selector utilizes financial statistics which are well known in the art, in order to evaluate the mutual fund criteria. Some of the statistics are components of the Modern Portfolio Theory (MPT), which is a standard financial and academic method for assessing the risk of mutual funds. The financial statistics include, but are not limited to, alpha, beta, R-squared, standard deviation, and the Sharpe ratio. However, since each financial statistic is unique and has a different range (e.g. R-squared ranges from 0 to 100, alpha can be positive or negative with no numerical limits), it is preferable to normalize the statistical data so that the diverse mutual fund criteria can be evaluated together. The statistical data is normalized by creating a distribution of the selected mutual fund universe and describing the statistical value based on its relative

position in the distribution. The slider bars are multipliers, which allow the user to effectively assign a weight to each of the mutual fund criteria. Each mutual fund criterion is measured by one or more statistical values which are normalized so that different fund criteria can be evaluated simultaneously." **[Application, page 37, lines 1-13]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

Inventive features of claim 114 also include means for summing the normalized values associated with each of the assets multiplied by the respective weights to obtain the respective rating for each of the assets, the respective rating being an aggregate sum corresponding to the respective asset's associated values multiplied by the associated values' respective weights. "In order to rate each mutual fund in the universe, the assigned weights are (a) multiplied by the mutual funds normalized criteria score and (b) added to each other. Therefore, the final score or rating for each mutual fund is the aggregate sum of each of the normalized mutual fund criteria scores multiplied by the respective weights. When the "rank funds" button 630 is clicked, the funds are ranked according to the final fund score, which simultaneously takes into account all of the user's preferences. The user then decides which funds to buy and sell in order to fulfill the target asset allocation plan." **[Application, page 39, lines 3-9]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

Claim 115

Further embodiments of Appellant's invention are set out in claim 115, which depends from claim 114 (which in turn depends from independent claim 78), and is directed to the means for ranking plurality of said assets based on said rating, as recited in claim 78.

Inventive features of claim 115 include means for ranking the assets based on the aggregate sum for each of the assets. "In order to rate each mutual fund in the universe, the assigned weights are (a) multiplied by the mutual funds normalized criteria score and (b) added

to each other. Therefore, the final score or rating for each mutual fund is the aggregate sum of each of the normalized mutual fund criteria scores multiplied by the respective weights. When the "rank funds" button 630 is clicked, the funds are ranked according to the final fund score, which simultaneously takes into account all of the user's preferences. The user then decides which funds to buy and sell in order to fulfill the target asset allocation plan." **[Application, page 39, lines 3-9]** See also FIGS. 1 and 2, and their accompanying descriptions, as provided above, for further details regarding embodiments of the "means" used to implement the functions of Appellant's invention.

### (vi.)    Grounds of Rejection to be Reviewed on Appeal

Whether claims 78-86 and 113-116 are patentable under 35 U.S.C. 103(a) over U.S. Patent No. 6,275,814 to Giansante *et al.* in view of U.S. Patent No. 5,126,936 to Champion *et al.*

### (vii.)    Argument

Obviousness

"It is well established that the burden is on the PTO to establish a prima facie showing of obviousness, *In re Fritsch*, 972 F.2d. 1260, 23 U.S.P.Q.2d 1780 (C.C.P.A., 1972)."

An obviousness rejection "cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." MPEP §2141 quoting *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1386, 1385 (2007). This rationale must include a showing that all of the claimed elements were known in the prior art and that one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, to produce a combination yielding nothing more than predictable results to one of ordinary skill in the art. *KSR*, 82 USPQ2d at 1395.

In *KSR*, where the Supreme Court reversed a decision by the Court of Appeal's for the Federal Circuit decision that reversed a summary judgment of obviousness on the ground that the

district court had not adequately identified a motivation to combine two prior art references, the invention was a combination of a prior art repositionable gas pedal, with prior art electronic (rather than mechanical cable) gas pedal position sensing. The Court first rejected the "rigid" teaching suggestion motivation (TSM) requirement applied by the Federal Circuit, since the Court's obviousness decisions had all advocated a "flexible" and "functional" approach that cautioned against "granting a patent based on the combination of elements found in the prior art."

With respect to the genesis of the TSM requirement, the Court noted that although "[a]s is clear from cases such as *Adams*[1], a patent composed of several elements is not proved obvious merely by demonstrating that each of its elements was, independently, known in the prior art. Although common sense directs one to look with care at a patent application that claims as innovation the combination of two known devices according to their established functions, it can be important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the elements in the way the claimed new invention does. This is so because inventions in most, if not all, instances rely upon building blocks long since uncovered, and claimed discoveries almost of necessity will be combinations of what, in some sense, is already known."

In application of the TSM requirement, the Court cautioned that: "Helpful insights, however, need not become rigid and mandatory formulas; and when it is so applied, the TSM test is incompatible with our precedents." To the extent the Fed Cir has been applying a flexible rule recently, that flexible rule was not applied in this case, and the Fed Cir can figure out how to match its actions to this decision.

Courts have also indicated, in relation to obviousness-based rejections, that:

- The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 U.S.P.Q. 1125, 1127 (Fed. Cir. 1984).

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[1] *United States v. Adams*, 383 U. S. 39, 40 (1966)

- "The claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 U.S.P.Q. 481, 488 (Fed. Cir. 1984).

- "The critical inquiry is whether 'there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination.'" *Fromson v. Advance Offset Plate, Inc.*, 225 U.S.P.Q. 26, 31 (Fed. Cir. 1985).

### (1) Claim 78-86 and 116 is patentable Over the Prior Art

For the purposes of this appeal only, claims 78-86 and 116 stand or fall together.

Claim 78 is representative of this group of claims. Claim 78 is directed to an investment guidance system that includes "... means for providing two or more criteria associated with said assets for said user to evaluate; means for determining a normalized value for each of said two or more criteria; means for receiving a relative weight of importance for said two or more criteria based on the user's personal investment preferences; means for determining a rating for each asset based on the normalized values and the relative weights assigned to said two or more criteria ..."

Thus, Appellant's system determines a normalized value for each of the criteria (e.g., financial statistics) associated with an asset, and determines a rating for each asset that is based on the determined normalized values and relative weights assigned to the <u>criteria</u> used to evaluate the assets. A user can therefore control the relative importance of criteria associated with an asset (e.g., the asset's risk, R-square value, tax efficiency, etc.) to facilitate rating and ranking of assets:

> "Once the user is educated on each of the defined mutual fund characteristics, through a series of "coaching" messages, he/she ranks the importance of each characteristic based on personal preference. These preferences are taken into account simultaneously to sort the universe of mutual funds without having to eliminate any funds from the evaluation process. The graphical input mechanisms, illustrated in this embodiment as slider bars, are used to apply relative weights of

importance to the mutual fund characteristics. The user assigns a relative weight of importance to the mutual fund criteria by selecting the appropriate slider bar and moving the slider 650 to various positions. According to the embodiment depicted, the mutual fund criteria include tax efficiency, consistent returns, stock/bond picking ability, low risk, consistent investment style and low fees. However, this list is not exhaustive and additional fund criteria may be specified. The user can apply relative weights to leach of the mutual fund criteria by utilizing the slider bars which range from unimportant to important. The left end-point 640 represents "unimportant" mutual fund characteristics and the right end-point 660 represents an "important" mutual fund characteristics. The user indicates his/her preferences for each criterion, by positioning the slider 650 anywhere between the left end-point 640 and the right end-point 660. For example, if the user positions the slider 650 at the left end-point, the user has defined that the mutual fund criterion is unimportant, and the criterion is given a weight of zero. Conversely, if the user positions the slider at the right-end point 6160, the user has defined that the mutual fund criterion is important, and the criterion is given the maximum defined weight. Likewise, if the user positions the slider 650 in the middle, the user has defined that the mutual fund criterion should be assigned half of the defined maximum weight. The investment guidance system 100 then ranks the mutual funds based on the user's personal preferences. The various mutual fund criteria can be defined by the investment guidance system 100, by the partner financial provider or by the user him/herself."

(Specification, page 35, line 22, to page 36, line 22)


And:

"In order to rate each mutual fund in the universe, the assigned weights are (a) multiplied by the mutual funds normalized criteria score and (b) added to each other. Therefore, the final score or rating for each mutual fund is the aggregate sum of each of the normalized mutual fund criteria scores multiplied by the respective weights. When the "rank funds" button 630 is clicked, the funds are ranked according to the final fund score, which simultaneously takes into account all of the user's preferences. The user then decides which funds to buy and sell in order to fulfill the target asset allocation plan."

(Specification, page 39, lines 3-9)


For the reasons that follow, Appellant contends that the Examiner's rejection of claim 78 is improper and that claim 78 is patentable over the prior art references cited by the Examiner


The prior art fails to disclose "means for receiving a relative weight of importance for said two or more criteria based on the user's personal investment preferences"

In rejecting claim 78, the Examiner stated with respect to the feature of "means for receiving a relative weight of importance for said two or more criteria based on the user's personal investment preferences":

> **Re claim 78:** An investment guidance system for providing financial planning assistance, comprising:
>
> ...
>
> --means for determining a normalized value for each of said two or more criteria;
>
> means for receiving a relative weight of importance for said two or more criteria based on the user's personal investment preferences (see column 6, lines 36+);
>
> ...
>
> (Final Action, pages 3-4)

The Examiner provided no additional reasons or explanations in support of the arguments that Giansante (and/or Champion) discloses the above-noted feature, except to assert that, with respect to Appellant's arguments in Appellant's March 5, 2009, Amendment in Reply to Action of October 6, 2008, that the Examiner's rejections are maintained:

> 1.      Applicant's arguments filed 3/05/2009 have been fully considered but they are not persuasive. The applicant is respectfully reminded that references, in determining obviousness are not read in isolation but for what they fairly teach in combination with the prior art as a whole. It is being maintained that references also are eevealuated [sic] by what they suggest to one versed in the art rather than their specific disclosure [see In re Bozek, 163 USPQ 545 (CCPA 1969)]. It is being maintained that the applicant's assertion that Giansante lacks "means for receiving a relative weight of importance for said two or more criteria ..." and "means for determining a rating for each asset based on the normalized values and the relative weights ..." or "means for ranking ...." It is being maintained that there is an uncertainty from the applicant's specification as to the corresponding structure to perform the various functions the applicant maintains as not found in the Giasnsante [sic] reference. It is being maintained that the 35 U.S.C. set forth provided reasoning for the combination of references and the applicant's piecemeal analysis of the reference can not be used to show non-obviousness by attacking the references individually. Similar to the applicant's invention, it is maintained that Giasnsante [sic] in combination with Champion discloses adjusting the weights of assets in each efficient portfolio to optimize the level of industry sector and diversification in the portfolio to maintain the portfolio at a position on or near the efficient frontier and the desired risk level. It is being maintained that the adjusting of weights to optimize the level of industry sector suggest a functional equivalent of ranking and normalization claimed in the applicant's invention inasmuch as normalization seeks to reduce redundancies in data to make its use more efficient and the maintenance of the portfolio a certain

position and at a certain risk level suggests ranking (see at least Giansante, column 6, lines 7-67). Thus the the [sic] following reasons maintained above the rejections are maintained below.

(Emphasis added, Final Action, pages 2-3)

The Examiner's contentions regarding claim 78 and the prior art are incorrect.

Giansante describes financial modeling techniques and an automated system for interacting with a user for computing and supplying asset recommendations to the user (Giansante, col. 1, lines 6-10). Giansante explains that in its system and methodology conventional portfolio computations are modified to take into account assets exhibiting a statistical variation in the value of the expected investment return. Giansante also explains that multiple portfolios lying in an efficient zone are constructed and considered and that the portfolio/assets are selected by creating a set of weighted average portfolio:

> As set forth above the classic computation of the efficient frontier treats the expected return of each of the assets as a constant. In the present invention conventional portfolio computations are modified to permit the consideration of assets exhibiting a statistical variation in the value of the expected investment return. This permits the consideration and construction of multiple portfolios which lie in an efficient "zone" rather than on a precise efficient frontier. The methodology further refines the selection by averaging the set of zone portfolios to create a set of weighted average portfolios. The set of average portfolios is a benchmark that may be further modified in the methodology. For example the portfolio can be adjusted to ensure that a final recommended portfolio matches certain preset criteria which is illustratively set forth as the industry sector diversification of the market itself.

> (Giansante, col. 2, lines 28-44)

Additionally, claim 2 of the Giansante patent (appearing in col. 6, lines 36+, on which the examiner relied) recites:

> 2. The process of claim 1 further comprising the step:
> k) adjusting the weights of the assets in each efficient portfolio to optimize the level of industry sector and investment style diversification in the portfolio, so as to maintain the portfolio at a position on or near the efficient frontier and at the desired risk level. (Giansante, col. 6, lines 36-44)

Thus, Giansante weighting is performed on <u>assets</u> or on a <u>portfolio</u>. Giansante, however, does not describe that the <u>criteria</u> (e.g., statistical measures associated with the assets being evaluated) are weighted or averaged in any way. Indeed, the Examiner admitted that, "it is maintained that Giasnsante in combination with Champion discloses <u>adjusting the weights of assets in each efficient portfolio</u> to optimize the level of industry sector and diversification in the portfolio to maintain the portfolio at a position on or near the efficient frontier and the desired risk level" (Emphasis added, Final Action, page 2). That is, by the Examiner's own admission, all that Giansante and Champion can be said to disclose is that the <u>weights of assets</u> are adjusted, *not* the <u>weights of criteria</u> used to evaluate assets. The only criterion mentioned by Giansante are the "preset criteria" that a final recommended portfolio has to match: "For example the portfolio can be adjusted to ensure that a final recommended portfolio matches certain preset criteria which is illustratively set forth as the industry sector diversification of the market itself. " (Giansante, col. 2, lines 42-44). This criterion is not weighed in any way.

Accordingly, contrary to the Examiner's contentions, Giansante does not disclose or suggest at least the features of "means for receiving a relative weight of importance for said two or more criteria based on the user's personal investment preferences," as recited in Appellant's independent claim 78.

Furthermore, Giansante does not describe at any point that any type of rating value is determined for each asset (which can then be compared to other assets' derived rating values) based on the assets' weighted criteria. Indeed, Giansante does not even mention a rating of any kind, let alone a rating based on assets' weighed criteria. As explained above, Giansante does not describe that criteria weighing is performed, and, therefore, determination of rating values based on assets' weighed criteria also cannot be performed. Accordingly, Giansante also fails to disclose or suggest at least the features of "means for determining a rating for each asset based on the normalized values and the relative weights assigned to said two or more criteria," as recited in Appellant's independent claim 78.

Champion describes a programmed controlled financial asset management system for implementing investor participation in capital markets through long and short positions in indexed investment vehicles (Champion, col. 1, lines 8-12). Champion indicates that investors can specify asset category weighing:

> **System operation is governed by the CPU (central processing unit) <u>which receives the inputted data from the participating investors, in terms of deposits or withdrawals and changes to asset category weighting</u> and respective MM. The CPU then performs an iterative calculation determining a required asset mix position for each account in response to the recently entered data for the operative period. The CPU aggregates the individual required trading positions for each account in each asset to determine a net trade in that asset group in response to all participants' requests and thereafter provides a recommended buy/sell order for execution in the marketplace. <u>To the extent that the net of deposits and withdrawals and changes in asset weightings</u> and MMs results in no new buying or selling being required by the system proprietor, significant transaction expenses are saved, which enable lower fees to be charged to participants.**
>
> **(Emphasis added, Champion, col. 5, lines 40-57)**

Thus, while Champion's system presumably uses or performs asset weighting, Champion's system, however, does not perform or use weighting of <u>criteria</u> associated with assets. Much less does Champion's system determine a rating value, associated with an asset, that is based on the assets weighted criteria. Accordingly, Champion too fails to disclose or suggest at least the features of "means for receiving a relative weight of importance for said two or more criteria based on the user's personal investment preferences," or "means for determining a rating for each asset based on the normalized values and the relative weights assigned to said two or more criteria," as recited in Appellant's independent claim 78.

Because neither Giansante nor Champion discloses or suggests, alone or in combination at least the features "means for receiving a relative weight of importance for said two or more criteria based on the user's personal investment preferences," or "means for determining a rating for each asset based on the normalized values and the relative weights assigned to said two or more criteria," Appellant's independent claim 78 (as well as any of the claims depending from it) is patentable over the cited art.

<u>The prior art fails to disclose "means for ranking plurality of said assets based on said rating"</u>

Claim 78 also recites "[a]n investment guidance system for providing financial planning assistance, comprising: ... means for ranking plurality of said assets based on said rating". Thus, the ratings determined for each asset based on the normalized values for the criteria associated with each of the assets and the relative weights of the criteria are used to rank the assets. In some embodiments, the user makes investment decisions (e.g., buy, sell) based on the ranking of assets:

> **In order to rate each mutual fund in the universe, the assigned weights are (a) multiplied by the mutual funds normalized criteria score and (b) added to each other. Therefore, the final score or rating for each mutual fund is the aggregate sum of each of the normalized mutual fund criteria scores multiplied by the respective weights. When the "rank funds" button 630 is clicked, the funds are ranked according to the final fund score, which simultaneously takes into account all of the user's preferences. The user then decides which funds to buy and sell in order to fulfill the target asset allocation plan. (Application, page 39, lines 3-9)**

In rejecting claim 78, the Examiner stated with respect to the feature of "means for ranking plurality of said assets based on said rating:"

> **Re claim 78:** An investment guidance system for providing financial planning assistance, comprising:
>
> --means for ranking plurality of said assets based on said rating (see column 6, lines 36+)
>
> ...
>
> (Final Action, pages 3-4)

The Examiner provided no additional reasons or explanations in support of the arguments that Giansante (and/or Champion) discloses the above-noted feature.

Giansante describes that in determining a portfolio recommendation, a user is initially interviewed to enable selection of an appropriate risk level to be used in the process, and determine the assets that are to be included in a portfolio. With respect to the assets that are to be included in an investor's portfolio, Giansante notes that all funds and other assets are treated according to a uniform methodology to rank the funds with respect to investment style, diversification, beta and P/E:

> **The preferred approach is set forth in the flow chart of FIG. 7 which starts with a client interview at block 50. The client interview asks questions which permit the appropriate selection of a risk bin for the client at an appropriate position along the risk axis. The client interview also determines which assets are available to the user for inclusion into portfolios. From the perspective of the invention it is important to note that all the funds or other assets are treated according to a uniform methodology to rank the funds with respect to investment style, diversification, beta, and P/E.**

> **(Giansante, col. 5, lines 9-19)**

But nowhere does Giansante describe that assets are ranked based on any type of rating (indeed, Giansante does not even mention any asset rating). Furthermore, as explained above, Giansante does not describe performing an asset rating based on normalized values for criteria associated with the assets, so Giansante certainly does not disclose ranking assets based on ratings determined for each asset based on the normalized values for the criteria associated with each of the assets and the relative weights of the criteria.

Accordingly, contrary to the examiner's contentions, Giansante fails to disclose or suggest at least the features of "means for ranking plurality of said assets based on said rating," as recited in Appellant's independent claim 78.

Champion does not disclose any asset rating, nor does Champion disclose any type of ranking performed with respect to assets. Champion, therefore, also fails to disclose or suggest at least the features of "means for ranking plurality of said assets based on said rating," as recited in Appellant's independent claim 78.

Because neither Giansante nor Champion discloses or suggests, alone or in combination, at least the features of "means for ranking plurality of said assets based on said rating," for this reason too, Appellant's independent claim 78 (and any of the claims depending from it) is patentable over the cited art.

Appellant's specification provides a detailed description of the structure used to perform the functions of claim 78

As noted above, in responding to Appellant's arguments presented in Appellant's March 5, 2009, Amendment in Reply to Office Action of October 6, 2008, the Examiner alleged that:

> It is being maintained that there is an uncertainty from the applicant's specification as to the corresponding structure to perform the various functions the applicant maintains as not found in the Giasnsante reference.
>
> (Final Action, page 2)

The Examiner's assertion regarding the alleged uncertainty of the structure used to perform the various functions of Appellant's invention are incorrect.

As noted above in the Summary of the Claimed Subject Matter section, Appellant's specification includes a detailed description of implementations of Appellant's system/platform that can be used perform the functions recited in claim 78. For convenience, excerpts of the description of such implementations are repeated below:

> **FIG. 1 [see FIG. 1 above] illustrates the system architecture of the investment guidance system 100 which enables investors to determine long-term financial goals, select an optimized asset mix, select mutual funds from a pre-set universe based on personal investment preferences, execute mutual fund trades, receive information alerts when needed and evaluate: and adjust investments on an ongoing basis. The system facilitates the selection of mutual funds by allowing the investor to apply relative weights of importance to mutual fund criteria rather than requiring the investor to set fixed statistical thresholds. The system then sorts the available funds taking into account all of the weighted mutual fund criteria and presents the user with a set of ranked funds. According to the embodiment depicted in FIG. 1, the investment guidance system 100 includes a guidance server 120, a transaction server 110, a broadcast server 115, a participant data server 125, and a user system 130. The guidance server 120 is the primary provider of investment planning assistance to users, and is the central database repository for storing user profile and investment data. In this manner, ongoing investment monitoring may be performed and alerts may be triggered. The guidance server 120 and its function will be described in further detail below, in connection with FIG. 3. ... The transaction server 110 may be located at the site of a brokerage firm, wherein it accepts and executes securities transactions which are initiated by the user and transmitted via the guidance server 120. The transaction server 110 may also communicate with various stock 20 exchange servers to effect such transactions. As will be apparent to those skilled in the art, there are a number of ways that trades can be transmitted electronically for execution in a securities, commodities, or other exchanges.**
>
> **(Specification, page 8, line 12, to page 9, line 22)**

A computer-based implementation of the investment guidance system depicted in FIG. 1

is shown in FIG. 2. The implementations of FIG. 2 enable input/output functionality that allows

a user to provide and receive data to and from the investment guidance system.

> FIG. 2 [*see FIG. 2, above*] depicts an example computer system capable of carrying
> out the functionality of the investment guidance system in FIG. 1. The computer
> system may represent an exemplary user system or any one of the plurality of
> servers referenced in FIG. 1. The system includes a central processing unit ("CPU")
> 250, read-only memory ("ROM") 210, random access memory ("RAM) 220, an
> encryption processor 230, a communication device 260, user interface 240 and a
> large capacity storage device 270. The large capacity storage device 270 may include
> hard disk magnetic or optical storage units, as well as CD-ROM drives or flash
> memory. The CPU 250 executes program code stored in one or more of the ROM
> 210, RAM 220 and/or large capacity storage device 270 according to conventional
> data processing techniques to carry out the functions and acts described in
> connection with the investment guidance system. The CPU 250 preferably comprises
> at least one high-speed digital data processor adequate to execute program modules
> for determining the probability of reaching a financial goal, developing a retirement
> and investment plan and evaluating mutual fund selection criteria. The CPU 250
> may be embodied as a single commercially available processor or as a number of
> processors operating in parallel.
>
> (Specification, page 11, lines 2-16)

And:

> A user interface 240 can comprise a display device, such as a cathode ray tube
> (CRT) or a liquid crystal display (LCD), for displaying information to a computer
> user. For example, graphical illustrations of current and "target" asset allocations,
> charts illustrating lifetime wealth forecasts and risk assessment, and other data may
> be presented to the user on the display device. Additionally, user interface 240 also
> comprises an alphanumeric input device and a cursor control, such as a mouse, a
> trackball, or cursor direction keys for communicating directional information to the
> CPU. For purposes of the preferred embodiment, it is assumed that a display is used
> to present information to each user, but it should be understood that information
> may be presented to the users using an audio signal, a Braille interface or any other
> suitable user interface."
>
> (Specification, page 13, line 15, to page 14, line 2)

Additionally, in relation to the function of, for example, receiving a relative weight of

importance for said two or more criteria based on the user's personal investment preferences

(recited in claim 78), Appellant's specification discloses:

> "Once the user is educated on each of the defined mutual fund characteristics,
> through a series of "coaching" messages, he/she ranks the importance of each
> characteristic based on personal preference. These preferences are taken into

account simultaneously to sort the universe of mutual funds without having to eliminate any funds from the evaluation process. The graphical input mechanisms, illustrated in this embodiment as slider bars, are used to apply relative weights of importance to the mutual fund characteristics. The user assigns a relative weight of importance to the mutual fund criteria by selecting the appropriate slider bar and moving the slider 650 to various positions. According to the embodiment depicted, the mutual fund criteria include tax efficiency, consistent returns, stock/bond picking ability, low risk, consistent investment style and low fees. However, this list is not exhaustive and additional fund criteria may be specified. The user can apply relative weights to leach of the mutual fund criteria by utilizing the slider bars which range from unimportant to important. The left end-point 640 represents "unimportant" mutual fund characteristics and the right end-point 660 represents an "important" mutual fund characteristics. The user indicates his/her preferences for each criterion, by positioning the slider 650 anywhere between the left end-point 640 and the right end-point 660. For example, if the user positions the slider 650 at the left end-point, the user has defined that the mutual fund criterion is unimportant, and the criterion is given a weight of zero. Conversely, if the user positions the slider at the right-end point 6160, the user has defined that the mutual fund criterion is important, and the criterion is given the maximum defined weight. Likewise, if the user positions the slider 650 in the middle, the user has defined that the mutual fund criterion should be assigned half of the defined maximum weight. The investment guidance system 100 then ranks the mutual funds based on the user's personal preferences. The various mutual fund criteria can be defined by the investment guidance system 100, by the partner financial provider or by the user him/herself."

(Specification, page 35, line 22, to page 36, line 22)

Furthermore, as noted above, Appellant's FIG. 6 depicts an implementation of a graphical user interface screen that specifies selection criterion that may be selected by the user, and the graphical elements enabling interactive setting of the weights associated with the various selected criteria:



FIG. 6

Thus, contrary to the Examiner's allegations, there is no uncertainty whatsoever from Appellant's specification regarding the corresponding structure used to perform the various functions recited in claim 78, or the various functions recited in any of the other pending claims under appeal.

## No Reason to Combine Champion with Giansante

Even assuming, for argument sake, that Giansante and Champion disclose the features the Examiner contends are disclosed in these references (which Appellant does not concede), Appellant submits that in any event a person of ordinary skill in the art would have no reason to combine the teachings of the Champion reference with the teachings of the Giansante reference.

Giansante is directed to financial modeling techniques, and an automated system for interacting with a user for computing and supplying asset recommendations to the user (Giansante, col. 1, lines 6-9), in which "conventional portfolio computations are modified to permit the consideration of assets exhibiting a statistical variation in the value of the expected investment return" (Giansante, col. 2, lines 31-33). Champion, on the other hand, is directed to managing a data processing system for managing a goal directed investment account, particularly, managing and adjusting the level of portfolio/investment risk, and describes that the system includes:

> a specific illustrative program controlled data processing system that maintains individual accounts each at a selected level of risk for each asset category selected. The data processing system calculates the aggregate level of risk in that asset category for the individual accounts and establishes an aggregate account position based thereon, via purchases or sales of individual securities, futures contracts in a selected market index, e.g., the S & P 500, or other asset related instruments for that asset category. Account funds are otherwise invested in a mix of income bearing instruments, such as U.S. Treasury notes. As the customer changes the level of risk or makes deposits and withdrawals, the accounts are automatically adjusted through market trades in the relevant asset group. Based on the market transactions, each account is updated in terms of exposure and net asset value. A relatively low administration fee is charged to the customers by the system proprietor.
>
> (Champion, col. 3, lines 30-49)

Thus, because Giansante is directed to supplying asset recommendations based on consideration of assets exhibiting a statistical variation in the value of the expected investment

returns whereas Champion is directed to asset risk management, there would be no reason for a person skilled in the art to consider combining the teachings of Champion with the unrelated teachings of Giansante.

Because no reason exists for combining the references cited by the Examiner, the Examiner has thus failed to establish a prima *facie case* of obviousness. For this reason too Appellant submits that independent claim 78 (as well as any of the claims depending from it) is patentable over the cited art.

Claims 79-86 and 116 depend from independent claim 78, and are therefore patentable over the cited art for at least the same reasons that independent claim 78 is patentable over the cited art.

### (2) Claim 113 is patentable over the prior art

Claim 113 depends from claim 78 and recites "wherein the means for determining the normalized value for each of said two or more criteria comprise: means for creating a distribution of the assets; and means for computing, for each of said two or more criteria of each of the assets in the distribution, normalized values of said two or more criteria based on the relative position of the respective asset in the distribution." Thus, to compare assets (e.g., mutual funds) in a meaningful way, the criteria associated with the assets have to be normalized. To compute such normalized values for each criterion, the relative positions of a particular criterion values, computed for all the assets being compared, are determined (e.g., for the R-squared criterion, the R-squared values for all the assets are computed, and their relative position in the R-squared distribution is determined):

> "The mutual fund selector utilizes financial statistics which are well known in the art, in order to evaluate the mutual fund criteria. Some of the statistics are components of the Modem Portfolio Theory (MPT), which is a standard financial and academic method for assessing the risk of mutual funds. The financial statistics include, but are not limited to, alpha, beta, R-squared, standard deviation, and the Sharpe ratio. However, since each financial statistic is unique and has a different range (e.g. R-squared ranges from 0 to 100, alpha can be positive or negative with no numerical limits), it is preferable to normalize the statistical data so that the diverse mutual fund criteria can be evaluated together. The statistical data is

> normalized by creating a distribution of the selected mutual fund universe and describing the statistical value based on its relative position in the distribution. The slider bars are multipliers, which allow the user to effectively assign a weight to each of the mutual fund criteria. Each mutual fund criterion is measured by one or more statistical values which are normalized so that different fund criteria can be evaluated simultaneously."

(Specification, page 37, lines 1-13)

In rejecting claim 113, the Examiner merely stated:

**Re claim 113:** wherein the means for determining the normalized value for each of said two or more criteria comprise: means for creating a distribution of the assets; and

means for computing, for each of said two or more criteria of each of the assets in the distribution, normalized values of said two or more criteria based on the relative position of the respective asset in the distribution. (see reasoning provided in claim 78).

The Examiner provided no additional reasons or explanations in support of the arguments that Giansante (and/or Champion) disclose the above-noted feature.

Examiner's contentions regarding claim 113 are incorrect.

As explained above with respect to Giansante's teachings, Giansante describes that a weighted average portfolio is created from multiple constructed portfolios lying in an efficient zone (the efficient zone being a cloud of portfolios that were generated by randomly varying several random variables associated with the portfolios; see Giansante cols. 3-4). But nowhere does Giansante describe that relative positions of criteria values in distributions corresponding to each criterion are determined. For that matter, Giansante does not describe that a distribution of any type of value (be it a portfolio, portfolio criterion, or otherwise) is created.

Accordingly, Giansante fails to disclose or suggest at least the features of "wherein the means for determining the normalized value for each of said two or more criteria comprise: means for creating a distribution of the assets; and means for computing, for each of said two or more criteria of each of the assets in the distribution, normalized values of said two or more

criteria based on the relative position of the respective asset in the distribution," recited in Appellant's claim 113.

Champion, as noted above, describes managing and adjusting the level of portfolio/investment risk. Champion, however, does not describe that relative positions of criteria values in distributions are determined. Indeed, Champion does not even discuss assets' criteria (e.g., statistical measures associated with assets), and it certainly does not describe determining relative positions of criteria values for different assets.

Accordingly, Champion too fails to disclose or suggest at least the features of "wherein the means for determining the normalized value for each of said two or more criteria comprise: means for creating a distribution of the assets; and means for computing, for each of said two or more criteria of each of the assets in the distribution, normalized values of said two or more criteria based on the relative position of the respective asset in the distribution," recited in Appellant's claim 113.

Because neither Giansante nor Champion discloses or suggests, alone or in combination, at least the features of "wherein the means for determining the normalized value for each of said two or more criteria comprise: means for creating a distribution of the assets; and means for computing, for each of said two or more criteria of each of the assets in the distribution, normalized values of said two or more criteria based on the relative position of the respective asset in the distribution," Appellant's claim 113 is patentable over the cited art.

### (3) Claim 114 is patentable over the prior art

Claim 114 depends from claim 78 and recites "wherein the means for determining the rating for each asset based on the normalized values comprises: means for multiplying each of the normalized values associated with each of the assets by the respective relative weight of importance; and means for summing the normalized values associated with each of the assets multiplied by the respective weights to obtain the respective rating for each of the assets, the respective rating being an aggregate sum corresponding to the respective asset's associated

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values multiplied by the associated values' respective weights." As explained in the specification of Appellant's application:

> The mutual fund selector utilizes financial statistics which are well known in the art, in order to evaluate the mutual fund criteria. Some of the statistics are components of the Modern Portfolio Theory (MPT), which is a standard financial and academic method for assessing the risk of mutual funds. The financial statistics include, but are not limited to, alpha, beta, R-squared, standard deviation, and the Sharpe ratio. However, since each financial statistic is unique and has a different range (e.g. R-squared ranges from 0 to 100, alpha can be positive or negative with no numerical limits), it is preferable to normalize the statistical data so that the diverse mutual fund criteria can be evaluated together. The statistical data is normalized by creating a distribution of the selected mutual fund universe and describing the statistical value based on its relative position in the distribution. The slider bars are multipliers, which allow the user to effectively assign a weight to each of the mutual fund criteria. Each mutual fund criterion is measured by one or more statistical values which are normalized so that different fund criteria can be evaluated simultaneously. (Application, page 37, lines 1-13)

And:

> "In order to rate each mutual fund in the universe, the assigned weights are (a) multiplied by the mutual funds normalized criteria score and (b) added to each other. Therefore, the final score or rating for each mutual fund is the aggregate sum of each of the normalized mutual fund criteria scores multiplied by the respective weights. When the "rank funds" button 630 is clicked, the funds are ranked according to the final fund score, which simultaneously takes into account all of the user's preferences. The user then decides which funds to buy and sell in order to fulfill the target asset allocation plan."
>
> (Application, page 39, lines 3-9)

Thus, in some embodiments, to rate assets based on weighed criteria, statistical scores (i.e., criteria) of the assets are first normalized by producing corresponding distributions for the statistical scores, and computing normalized scores for the assets based on the relative positions in the distributions of the statistical scores. The normalized statistical scores for each assets are then weighed, and the sum of the normalized and weighed statistical scores for each assets are computed to thus enable generating a ranking of the assets based on that computed sums.

In rejecting claim 114, the Examiner merely stated:

> **Re claim 114:** wherein the means for determining the rating for each asset based on the normalized values comprises:

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means for multiplying each of the normalized values associated with each of the assets by the respective relative weight of importance; and

means for summing the normalized values associated with each of the assets multiplied by the respective weights to obtain the respective rating for each of the assets, the respective rating being an aggregate sum corresponding to the respective asset's associated values multiplied by the associated values' respective weights . (see reasoning provided in claim 78)

The Examiner provided no additional reasons or explanations in support of the arguments that Giansante (and/or Champion) disclose the above-noted feature.

The Examiner's contentions regarding claim 114 are incorrect.

As explained above in relation to independent claim 78, neither Giansante nor Champion discloses or suggests weighing criteria (e.g., statistical scores). It therefore follows that neither of these references discloses or suggests the more specific embodiments of claim 114, namely, that the rating of assets is performed by weighing normalized statistical scores associated with each of the assets, summing the weighed scores for each of the assets, and ranking the computed sums.

Accordingly, neither Giansante nor Champion discloses or suggests, alone or in combination, at least the features of "wherein the means for determining the rating for each asset based on the normalized values comprises: means for multiplying each of the normalized values associated with each of the assets by the respective relative weight of importance; and means for summing the normalized values associated with each of the assets multiplied by the respective weights to obtain the respective rating for each of the assets, the respective rating being an aggregate sum corresponding to the respective asset's associated values multiplied by the associated values' respective weights," as recited in claim 114.

Claim 114 is therefore patentable over the cited art.

**(4) Claim 115 is patentable over the prior art**

Claim 115 depends from claim 114 and recites "wherein the means for means for ranking plurality of said assets based on said rating comprises: means for ranking the assets based on the aggregate sum for each of the assets." Thus, the aggregate sum computed for each asset, representative of the rating computed based on the weighed criteria is subsequently used to rank the assets:

> **"In order to rate each mutual fund in the universe, the assigned weights are (a) multiplied by the mutual funds normalized criteria score and (b) added to each other. Therefore, the final score or rating for each mutual fund is the aggregate sum of each of the normalized mutual fund criteria scores multiplied by the respective weights. When the "rank funds" button 630 is clicked, the funds are ranked according to the final fund score, which simultaneously takes into account all of the user's preferences.**
>
> **(Application, page 39, lines 3-8**

In rejecting claim 115, the Examiner merely stated:

> **Re claim 115:** wherein the means for means for ranking plurality of said assets based on said rating comprises:
>
> means for ranking the assets based on the aggregate sum for each of the assets (see reasoning provided in claim 78)

The Examiner provided no additional reasons or explanations in support of the arguments that Giansante (and/or Champion) disclose the above-noted feature.

The Examiner's contentions regarding claim 115 are incorrect.

As explained above in relation to claims 78 and 114, neither Giansante nor Champion discloses or suggests weighing criteria (e.g., statistical scores). Particularly, whereas Giansante ranks funds, or other assets, according to a "uniform methodology ... with respect to investment style, diversification, beta, and P/E" (Giansante, col. 5, lines 18-19), Appellant's ranking is based on computing aggregate sums of normalized weighed criteria computed for individual assets. Giansante does not mention summing any type of score, let alone summing weighed criteria, and ranking assets based on the computed aggregate sums.

Champion, as noted above, does not describe any type of asset rating computation, or asset ranking, and Champion certainly does not describe a ranking based on aggregate sums of normalized weighed criteria for respective assets.
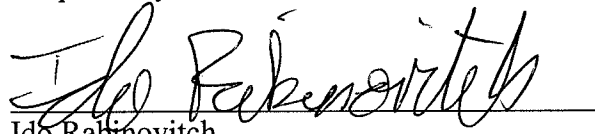
Accordingly, neither Giansante nor Champion discloses or suggests, alone or in combination, at least the features of "wherein the means for means for ranking plurality of said assets based on said rating comprises: means for ranking the assets based on the aggregate sum for each of the assets."

For this reason, Appellant's claim 115 is patentable over the cited art.

## Conclusion

For the foregoing reasons, as well as the reasons provided in Appellant's Pre-Appeal Brief Request for Review, dated November 9, 2009, and Appellant's March 5, 2009, Amendment in Reply to Action of October 6, 2008, Appellant submits that claims 78-86 and 113-116 are allowable. Therefore, the Examiner erred in rejecting Appellant's claims and should be reversed.

Respectfully submitted,

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## (viii)  Claims Appendix

1-77.  (canceled)

78. An investment guidance system for providing financial planning assistance, comprising:

means for receiving a financial goal from a user;

means for receiving one or more input decisions upon which the probability of achieving said financial goal is dependent, wherein one of the input decisions includes selecting an asset allocation based on investment risk;

means for determining the probability of achieving said financial goal;

means for receiving an indication that said user has selected a target asset allocation investment plan in order to achieve said financial goal;

means for receiving a request to rate a plurality of assets within a selected asset class;

means for providing two or more criteria associated with said assets for said user to evaluate;

means for determining a normalized value for each of said two or more criteria;

means for receiving a relative weight of importance for said two or more criteria based on the user's personal investment preferences;

means for determining a rating for each asset based on the normalized values and the relative weights assigned to said two or more criteria;

means for ranking plurality of said assets based on said rating;

means for receiving a request to execute a trade for one or more of the ranked assets in order to fulfill said target asset allocation investment plan; and

means for executing said trade for one or more of the selected ranked assets.

79. The system of claim 78, further comprising means for reallocating asset distribution in a user's portfolio based on executed trades.

80. The system of claim 78, further comprising means for receiving additional requests to execute said trade for one of the ranked assets in order to fulfill said target asset allocation investment plan.

81. The system of claim 78, further comprising:

means for evaluating said target asset allocation investment plan against one or more financial goals;

means for alerting the user if progress towards one or more financial goals deviates substantially.

82. The system of claim 78, wherein said financial goal is a retirement income

83. The system of claim 78, wherein one of said input decisions upon which the probability of achieving said financial goal is dependent is a 401(k) contribution rate.

84. The system of claim 78, wherein one of said input decisions upon which the probability of achieving said financial goal is dependent is a taxable savings rate.

85. The system of claim 78, wherein one of said input decisions upon which the probability of achieving said financial goal is dependent is the income required at retirement.


86. The system of claim 78, wherein one of said input decisions upon which the probability of achieving said financial goal is dependent is an anticipated retirement age.


87-112. (Canceled)


113. The system of claim 78 wherein the means for determining the normalized value for each of said two or more criteria comprise:

means for creating a distribution of the assets; and

means for computing, for each of said two or more criteria of each of the assets in the distribution, normalized values of said two or more criteria based on the relative position of the respective asset in the distribution.


114. The system of claim 78 wherein the means for determining the rating for each asset based on the normalized values comprises:

means for multiplying each of the normalized values associated with each of the assets by the respective relative weight of importance; and

means for summing the normalized values associated with each of the assets multiplied by the respective weights to obtain the respective rating for each of the assets, the respective rating being an aggregate sum corresponding to the respective asset's associated values multiplied by the associated values' respective weights.

115. The system of claim 114 wherein the means for means for ranking plurality of said assets based on said rating comprises:

means for ranking the assets based on the aggregate sum for each of the assets.

116. The system of claim 78 wherein the two or more criteria comprises one or more of: an R-squared value representative of a correlation between the value of an asset and the behavior of one more benchmark indices, a tax efficiency value computed as an after-tax returns for the asset divided by the pre-tax returns, an information ratio representative of the consistency with which a manager managing the assets generally beats the one or more benchmark indices, a risk factor associated with the asset, administrative fees associated with the asset and standard deviation associated with the asset.

## (ix)    Evidence Appendix

None

## (x)    Related Proceedings Appendix

None

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